REMARKS

This Reply is responsive to the non-final office action of November 17, 2009, (hereinafter "Office Action").[1] Claims 1-18 and 36-38 were presented for examination as Group I claims elected with traverse in response to a previously issued restriction requirement against claims 1-44. Accordingly, claims 19-35 and 39-44 were previously canceled. Claims 1-18 and 36-38 are currently rejected. Claims 1, 17, 18 and 36 are currently amended; support for the amendment can be found in the specification as filed, at least in paragraph [0040]; no new matter is added. No claims are currently added or canceled. Thus, claims 1-18 and 36-38 are pending. Claims 1, 17, 18 and 36 are independent claims.

Claims 1-5, 8-9, 11-18 and 36-38 are rejected under 35 U.S.C. §102(a) as being anticipated by newly-cited Millar (U.S. 6,831,901, hereinafter "Millar"). Claims 6 and 7 are rejected under 35 U.S.C. §103(a) as being un-patentable over Millar in view of newly-cited Stephens (provisional application #60/371,994 filed April 12, 2002 from which U.S. Patent No. 6,934,077 issued; hereinafter "Stephens"). Claim 10 is rejected under 35 U.S.C. §103(a) as being un-patentable over Millar. Applicant respectfully traverses these rejections.

1. analog signals output from a user device

Applicant shows below that the signals which are output from Millar's base transceiver stations (BTS's) are digital and not analog signals. Furthermore, Applicant contends that

[1] The Office Action may contain a number of statements characterizing the cited references and/or the claims which Applicant may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicant does not automatically subscribe to, or acquiesce in, any such statement. Further, silence with regard to rejection of a dependent claim, when such claim depends, directly or indirectly, from an independent claim which Applicant deems allowable for reasons provided herein, is not acquiescence to such rejection of that dependent claim, but is recognition by Applicant that such previously lodged rejection is moot based on remarks and/or amendments presented herein relative to that independent claim.

Millar's base transceiver stations (BTS's) are not user devices in the first place. Consider, for example, claim 1.

Claim 1 is rejected under section 102(e) as allegedly anticipated by Millar. Millar teaches that its system for communicating data information can include a hub, e.g., HUB 130, to receive a signal from at least one base station. (Millar, col. 4, lines 41-43) The Examiner reads Millar's HUB 130 as allegedly being equivalent to Applicant's recited interface unit. (Office Action, pg 3) The Examiner reads Millar's base transceiver stations BTS 120-1....120-n as allegedly being equivalent to Applicant's recited plurality of user devices. (Office Action, pg 3) The Examiner states:

> "the interface unit being configured to receive one or more *analog* signals from a user devices of the plurality of user devices via a port of the plurality of ports, or analog RF signals originating in BTS items of figure 3 going to Hub item 130 (see column 9, lines 18-24)"

(Office Action, pg 3, emphasis added) Applicant respectfully disagrees with this statement at least because Millar teaches that the signals transmitted from its BTS's are *digital* signals. Millar states:

> "Typically, each base station is coupled to hub 130 via one or more coaxial cables carrying *digitized* RF (Radio Frequency) signals." (Millar, col. 6, lines 63-65; emphasis added)

> "In this way, a *digitized* RF signal received at hub 130 can be reproduced at a target access node 150, making it appear as though the original RF signal generated by a base station is seamlessly connected to a corresponding remote antenna device." (Millar, col. 7, lines 29-34; emphasis added)

Thus, digital RF signals are output from the base transceiver stations 120 on cables 122 to HUB 130.

The section of Millar to which the Examiner refers, i.e., col. 9, lines 18-24, may refer to an analog signal, as further discussed in the next paragraph, but it is not referring to the signal which is output from (transmitted by) one of Millar's BTS stations. Rather, this analog signal is generated inside Millar's HUB 130 and is merely the "IF" (intermediate frequency) signal. In fact, this analog signal is generated inside of the RF Down Converter 410 and is shown as output from RF Down Counter 410 in Millar's Fig. 4. Millar says: "As a result of down converting, an IF (Intermediate Frequency) signal is produced and coupled to forward simulcast card 420." (Millar, col. 9, lines 53-56) RF Down Converter 410 shown in Fig. 4 is part of hub down converter HDC 310-1 shown in Fig. 3 which, in turn, is part of HUB 130 shown in Fig. 3. Furthermore, the IF signal is clearly described in Millar as analog: "As shown, IF signal or any other suitable *analog* signal is fed into A/D (Analog-to-Digital) converter 505. The IF signal is sampled to produce a digitized RF signal." (Millar, col. 9, line 66 to col. 10, line 1; emphasis added)

The section to which the Examiner refers states as follows:

> The RF signal transmitted by base transceiver 120-1 is coupled via coaxial cable 312 to hub 130 and, more specifically, hub down converter 310-1. Upon receipt, hub down converter 310-1 converts the forward RF channel to an IF (Intermediate Frequency) that can be digitized. It should be noted that each hub down converter can support multiple separate RF channels.

(Millar, col. 9, lines 18-24; emphasis added) This section says that the hub down converter converts the [signal on the] forward RF channel to an analog signal [the IF signal] which can be digitized [because it is an analog signal]. This is confirmed by the identified signal output from RF Down Converter 410 in Millar's Fig. 4, which is the identified IF (intermediate frequency) analog signal. Thus, the digitized RF signal (i.e., digital signal) transmitted by base transceiver 120-1 is received by HUB 130 in hub down converter 310-1 wherein the frequency of the signal

is apparently reduced and wherein the signal goes through a digital to analog conversion in RF Down Converter 410 to generate the IF signal. This section does not suggest that the signal received from base transceiver 120-1 was originally an analog signal. To the contrary, as discussed above, Millar teaches that the signal which is output onto the coax cable (e.g., 122-1) and received at hub 130 is a digitized signal.

The IF analog signal is thereafter "digitized" which means it is sampled to convert it back into a digital signal and this is performed in A/D converter 505 in Fig. 5A (within an un-designated dashed-line box representing FSC 420). A/D converter 505 and other associated functional blocks 510, 515, 520 and 525 shown in that box are part of the forward simulcast card FSC 420 shown in Fig. 4. This is discernable from the location of that undesignated box in Fig. 5A relative to the locations of patch panel 320 and Serial Interface SIF 390-1 also shown in Fig. 5A, as compared with those functionalities also shown in Figs. 3 and 4.

In view of the above, it is clear that there is no analog signal output from base transceiver stations in Millar, where the base transceiver stations (120-1, etc.) are being viewed in the Office Action as user devices. Thus, Millar does not anticipate "the interface unit being configured to: receive one or more *analog signals output from* a user device of the plurality of user devices via a port of the plurality of ports" as recited in claim 1. (emphasis added)

Furthermore, Applicant respectfully submits that base transceiver stations are not properly interpreted as "user devices" in the first place. A user device is, for example, a telephone, or other device capable of being used by a user. *See*, for example, Applicant's specification, paragraph [0022], which lists various user devices. Quite differently, a base transceiver station (BTS) is a switching and/or communication control station which may be owned, leased, licensed or otherwise legally controlled, operated and/or used by, e.g., a cellular

communication services provider. The base transceiver station functions to transmit and receive cellular calls to and from cellular telephone users, respectively, and route those calls from and to their respective sources and destinations.

Clearly, a BTS is not under the control of an individual cellular telephone user, is not a device operated by that user and, therefore, should not *reasonably* be interpreted as a user device. Claim language, under examination, should be given its broadest *reasonable* interpretation, but this interpretation is not reasonable. A BTS is merely part of a telecommunication system or network serving a user when operating his/her cell phone user device. A base transceiver station is no more a user device when operating with a user's cell phone than is a television station including TV transmitter system a user device when operating with a user's TV set. Clearly, the TV set in this analogy is the user device and the TV station/transmitter is not. Therefore, Millar does not disclose or suggest: "an interface unit that includes a plurality of ports configured to connect to a plurality of *user devices*, the interface unit being configured to: receive one or more analog signals output from a *user device* of the plurality of *user devices* via a port of the plurality of ports" as recited in claim 1. (emphasis added)

MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *See Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). Clearly, in this instance, each and every element as set forth in claim 1 is not found, expressly or

inherently, in Millar for either one or both reasons given above. And, the identical invention is not shown in Millar in as complete detail as is contained in claim 1.

Accordingly, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed.

Claims 2-16, dependent from claim 1, are allowable at least for reasons based on their respective dependencies from an allowable base claim.

2. radio signal representing only extracted payload bits

Applicant further submits that Millar teaches the transmitting of other than only extracted payload bits from its antennae.

Claim 1 further recites: "a radio unit configured to: .....transmit the depacketized radio signal representing *only extracted payload bits* over a radio channel." (emphasis added) Applicant discloses the broadcasting of a radio signal over a radio channel. Accordingly, anyone who is tuned to that radio channel can receive that radio signal. Clearly, multiple parties can tune-in to the same radio channel, e.g., as is plainly observed in connection with ordinary commercial radio broadcasts. Thus, there is no need for additional destination bits to direct the transmission of Applicant's depacketized radio signal to a particular destination.

But, quite differently, in typical cellular telephone usage, as discussed in Millar (*see* Fig. 2 and col. 8, lines 18-33), where only one destination party may be intended to receive the transmission (the party corresponding to the "dialed" phone number), additional bits accompanying the payload bits become a necessity to identify the proper destination for the duration of the cell phone call. Notably, according to Millar, those additional bits accompanying the payload bits are included in the digitized RF signal output by BTS 120-1 onto cable 122-1 and received by HUB 130. This is clear from the following:

> As previously discussed, the *original* RF signal received fro[m] a corresponding base station 120 can be reproduced for driving an antenna device 160 at a radio access node 150. (Millar, col. 15, lines 48-51; emphasis added)

This section says that the original RF signal output by, e.g., BTS 120-1 onto cable 122-1 connected to HUB 130 can be reproduced to drive an antenna. Thus, that signal includes sufficient information such that, if it had been output directly to an antenna instead of to coax cables leading to HUB 130, it would have been properly transmitted by that antenna to a cellular telephone. That original RF signal did not need to be manipulated by functionality of HUB 130 and RAN 150 to achieve a cellular transmission format.

Therefore, the original digitized RF signal on coaxial cable 122-1 necessarily included more than mere payload information. Payload information, by itself, does not include any destination information or other overhead information needed for cellular transmission. Clearly, a transmission signal that is intended for a particular recipient must include that recipient's destination information (e.g., information corresponding to the recipient's telephone number), and that destination information establishes that signal as something other than a radio signal representing only extracted payload bits. Accordingly, Millar does not disclose or suggest: "a radio unit configured to…convert the packet to a depacketized radio signal representing only extracted payload bits and transmit the depacketized radio signal representing only extracted payload bits over a radio channel" as recited in claim 1. Millar transmits a signal comprised of more than only extracted payload bits.

As noted above, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed.

Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *See Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). Clearly, in this additional instance, each and every element as set forth in claim 1 is not found, expressly or inherently, in Millar for reasons given above. And, the identical invention is not shown in Millar in as complete detail as is contained in claim 1.

Accordingly, for this additional reason, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed.

As noted above, claims 2-16, dependent from claim 1, are allowable at least for reasons based on their respective dependencies from an allowable base claim.

The other reference, Stephens, does not cure this deficiency of Millar. Stephens is not cited in the rejection of claim 1 anyway.

Independent claims 17, 18 and 36 each contain limitations that are the same as, or are similar to, those discussed above for claim 1. Accordingly, independent claims 17, 18 and 36 are allowable for reasons that are the same as, or similar to, those given above for claim 1.

Dependent claims 37 and 38, dependent from claim 36, are also allowable, at least for reasons based on their dependency from an allowable base claim.

CONCLUSION

Reconsideration and allowance are respectfully requested based on the above amendments and remarks. [2]

If there are any remaining issues or if the Examiner believes that a telephone conversation with Applicant's attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at 508-625-1323

To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. Please charge any other fees due, or credit any overpayment made to that account.

Respectfully submitted,

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/Joel Wall, Reg. No. 25,648/

Joel Wall
Attorney for Applicant
Registration No. 25,648

Eddy Valverde
Verizon Corporate Services Group Inc.
1320 North Courthouse Road, 9th Floor
Arlington, VA 22201-2909
Tel: 703.351.3032
Fax: 703.351.3665
CUSTOMER NO. 25,537

[2] As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, Official Notice, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.